

Evaluation of Active Living by Design:

A mixed-methods approach to assessing implementation patterns across communities

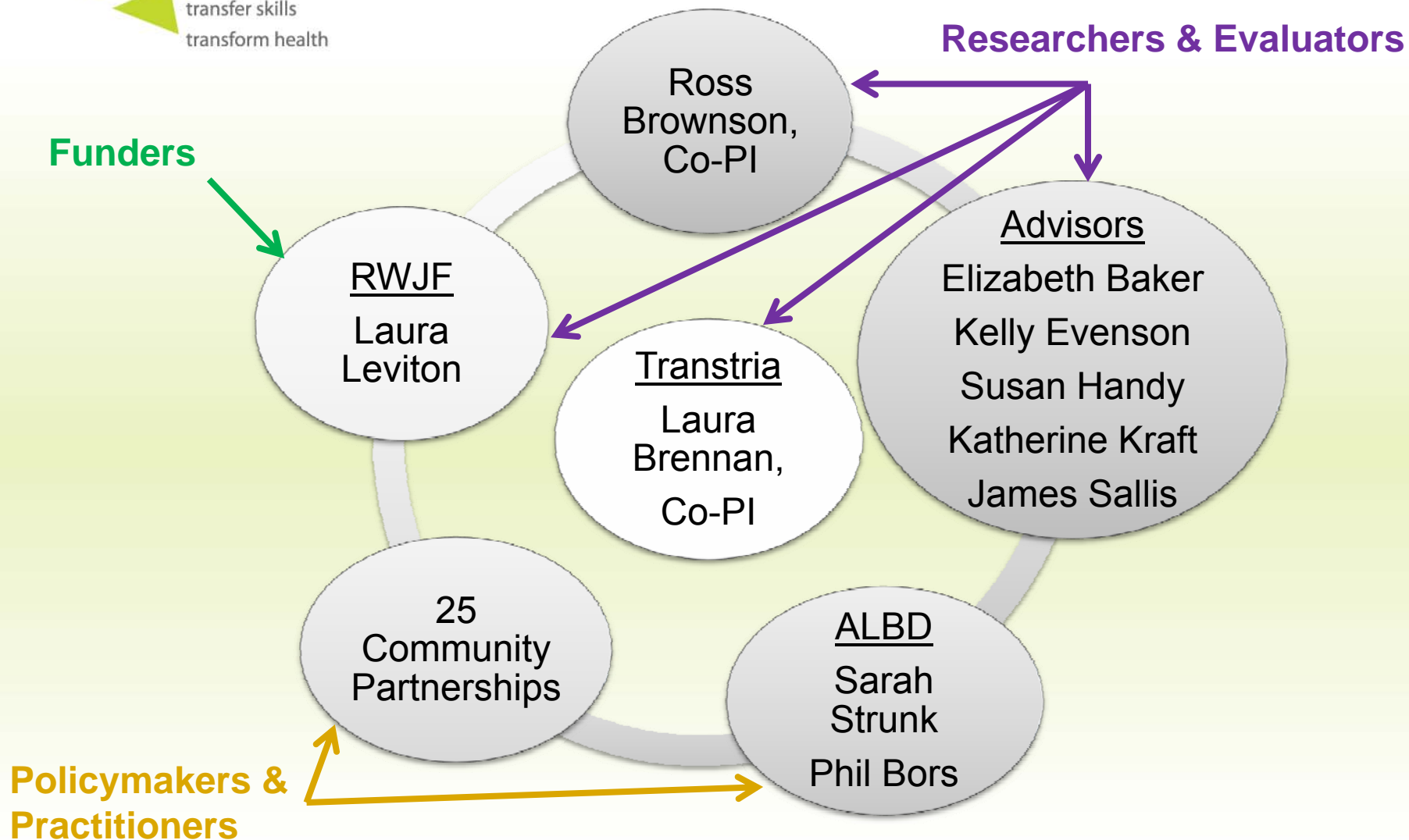


cebp

translate evidence
transfer skills
transform health

Laura Brennan, PhD, MPH
February 26, 2013

An unconventional evaluation team...





ACTIVE LIVING
BY DESIGN

Active Living by Design Community Partnerships



“High touch/ low dollar” approach

- Community partnerships received \$40,000/year from 2003 to 2007 plus...



Strong leadership

Communications expertise



Customized TA & support



Annual meetings

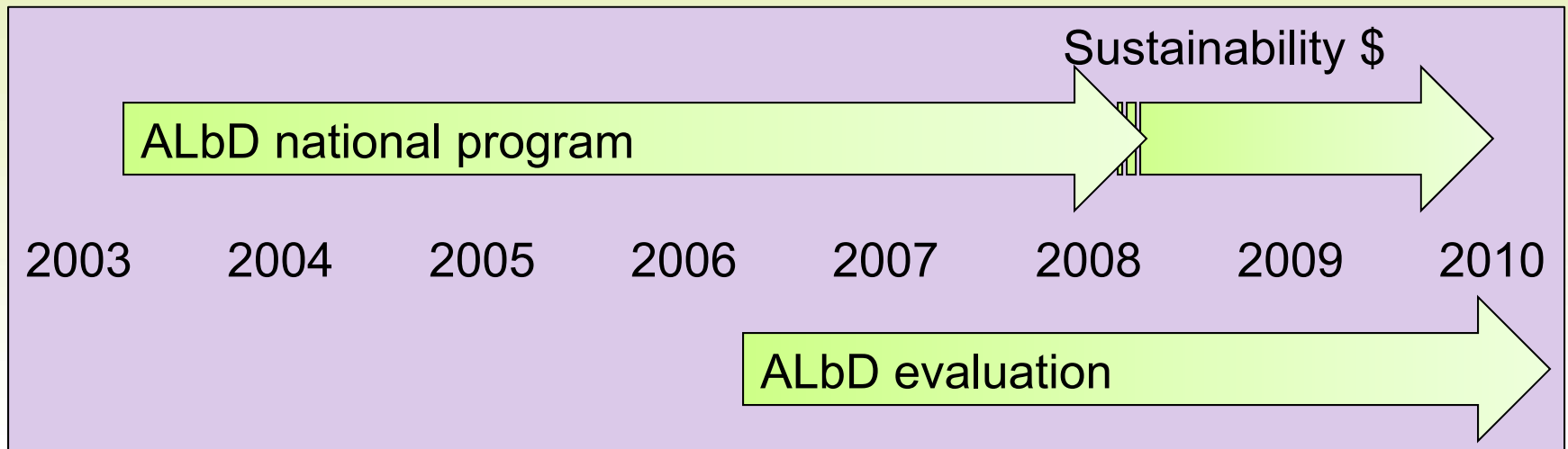


And fun!

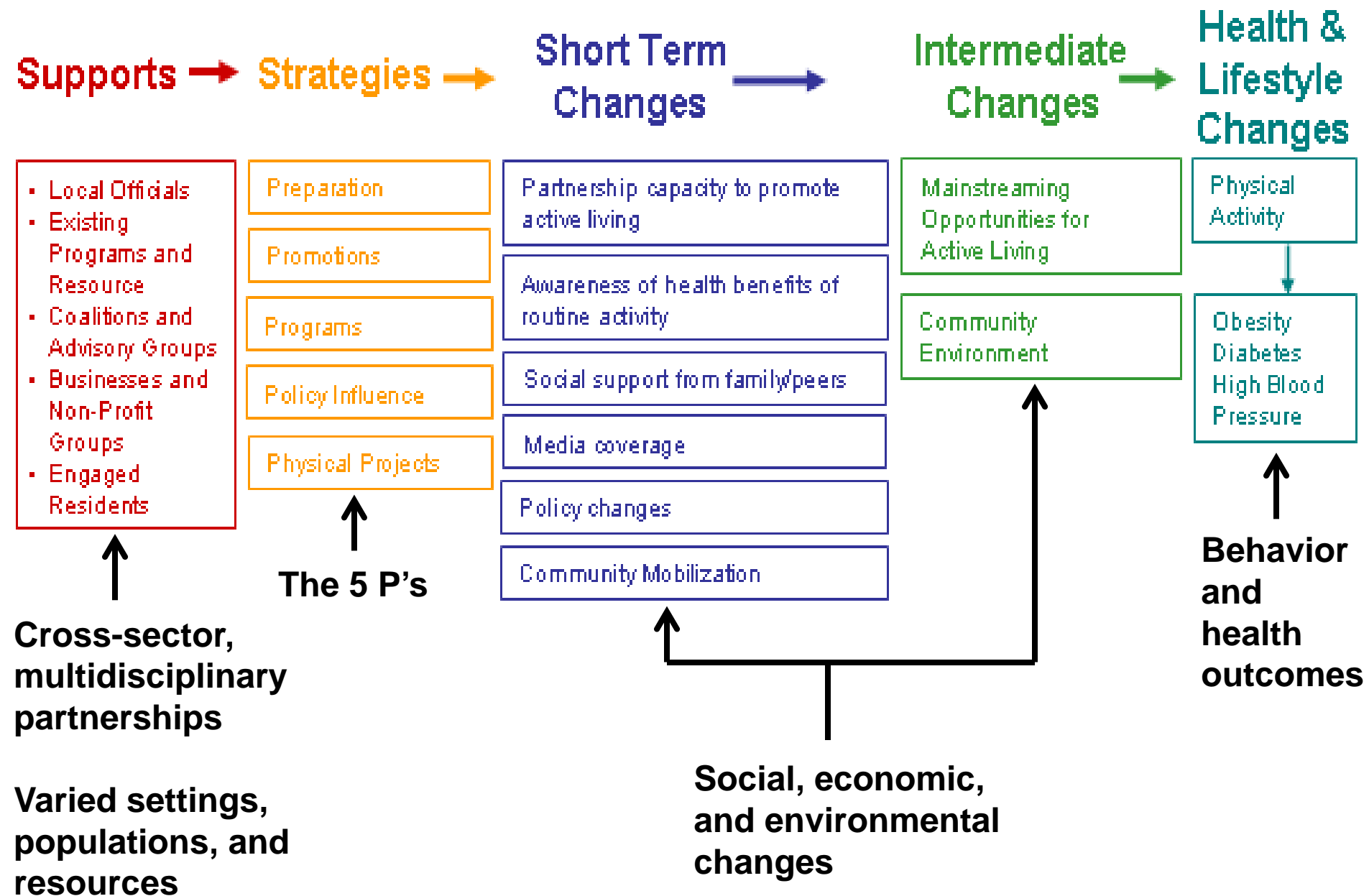
ALbD community partnership efforts launched in November 2003.

A previous plan to initiate an evaluation from the beginning of the ALbD program was discontinued in October 2005.

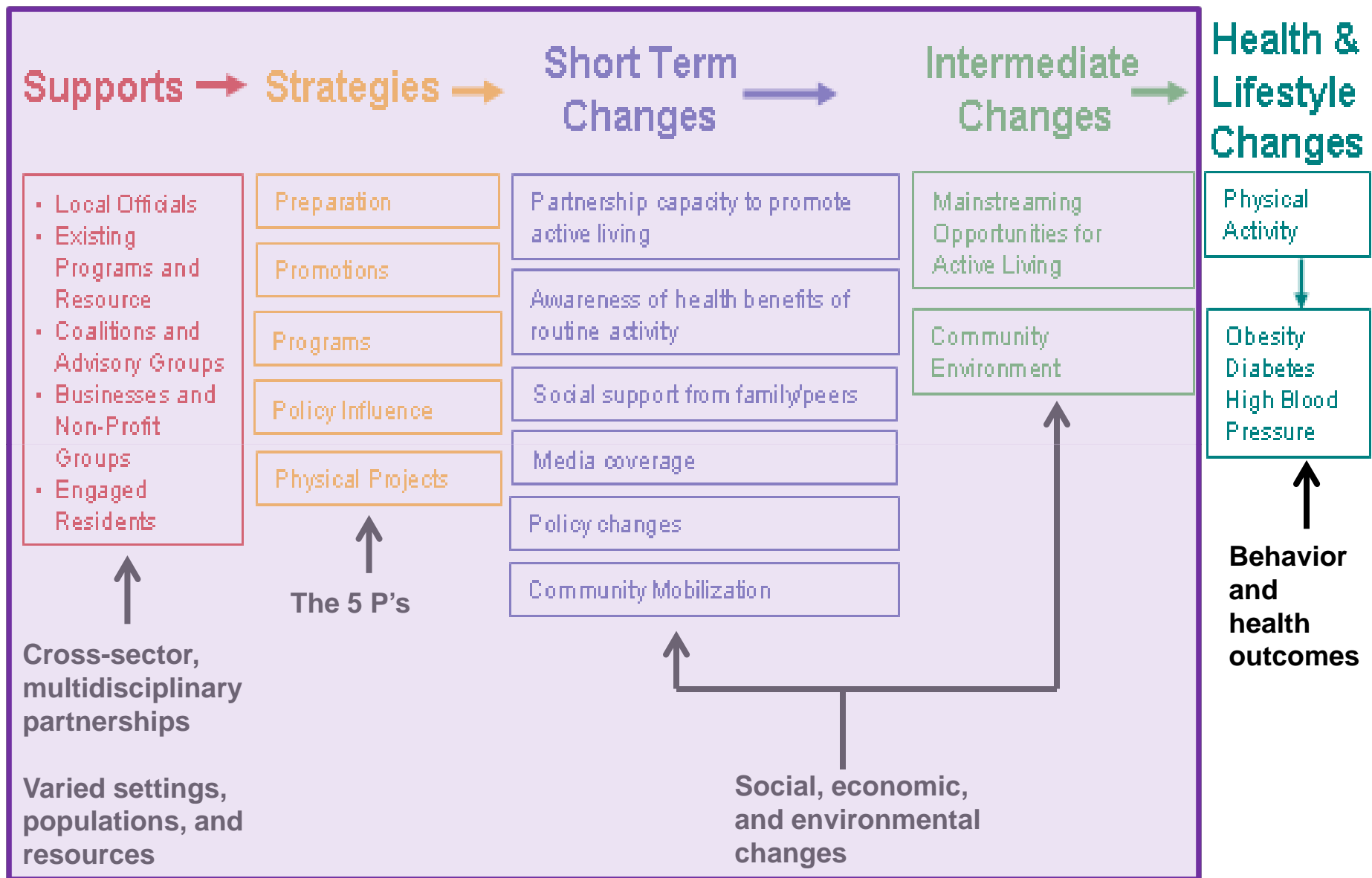
This plan for evaluation started in November 2006 (i.e., the start of the fourth year of the program).



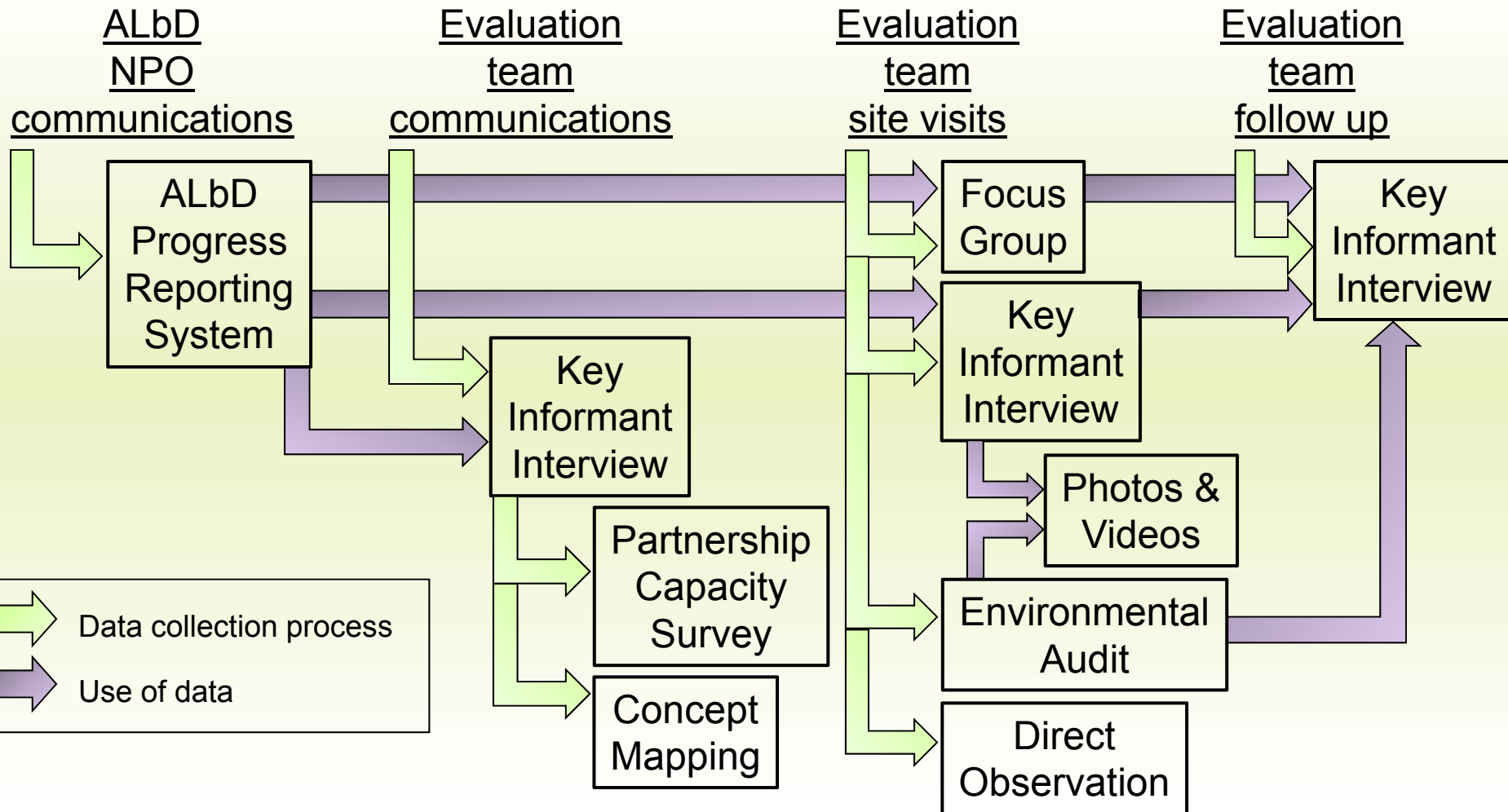
Active Living by Design Community Action Model



Active Living by Design Community Action Model



Data collection approach

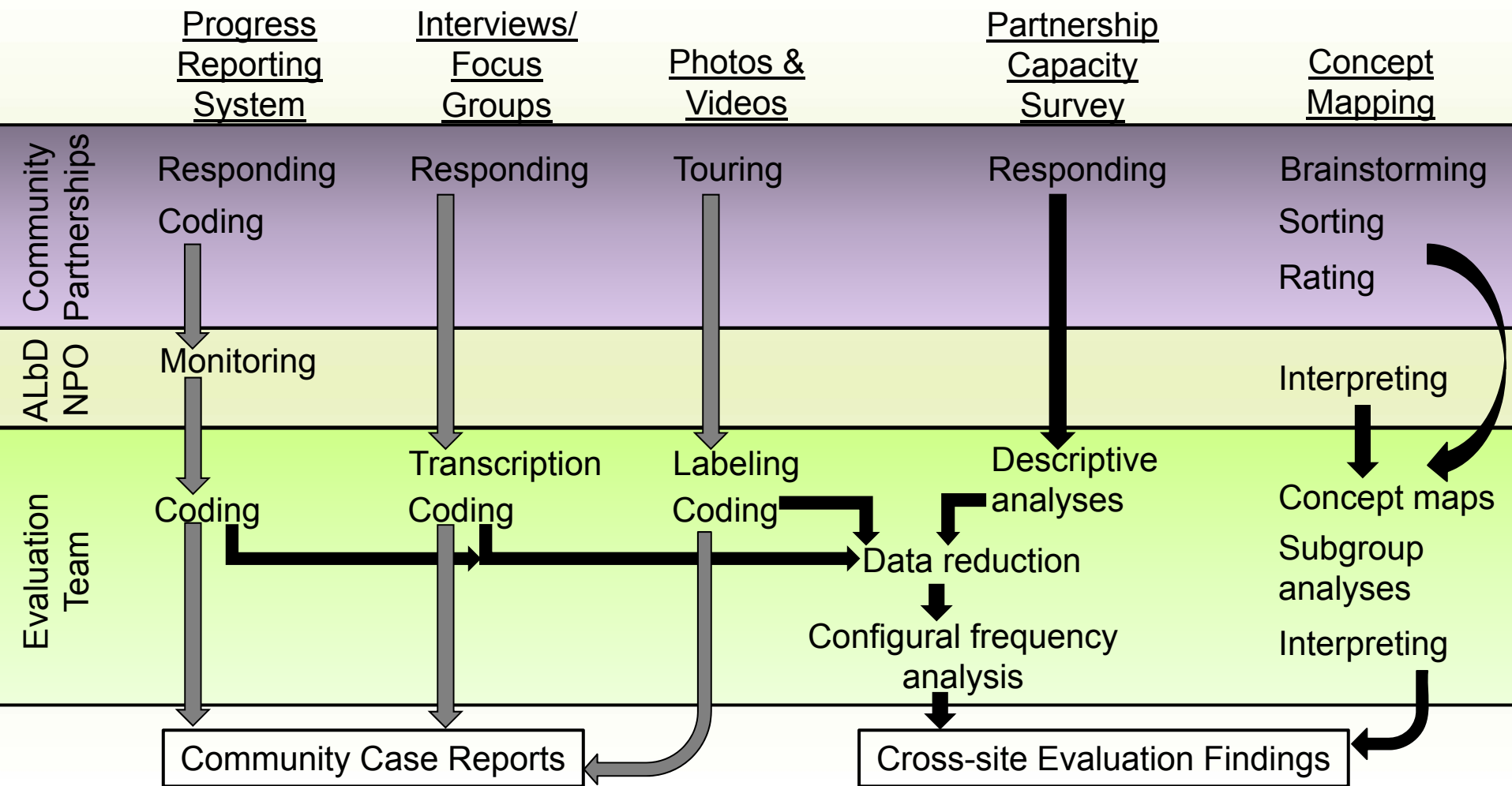


Method	Purpose	Indicators	Participants
Progress Reporting System (2004 to 2010)	Track planning and implementation activities, intended and unintended consequences of these activities in real-time.	Partnership Preparation Promotions Programs Policy Physical Projects	Project director and/or coordinator, ALbD National Program Office staff (n = 25 communities)
Partnership capacity surveys (2007 to 2008)	Identify characteristics of the partnership, leadership, and relationships to the community.	Partnership's purpose and goals Partnership functioning Leadership Partnership resources Partnership's relationship with the community	Community partnership members and staff (n = 28 respondents and 25 communities)
Concept mapping (2007 to 2008)	Identify, categorize, and prioritize active living strategies for creating community change and increasing physical activity behavior.	Actions or changes that occurred in the community to support active living	Community partnership members, staff, and community members (n = 43 respondents and 23 communities)

Method	Purpose	Indicators	Participants/ Observations
Key informant interviews (2007 to 2009)	Gain insights from staff and partners and to set the stage for the site visits by the evaluation team.	Lead agency and community partnership characteristics Planning and implementation activities Intended and unintended consequences	<u>Staff</u> (n = 31 [before], 57 [during], and 9 [after] site visits in 25 communities) <u>Partners</u> (n = 1 [before], 69 [during], and 5 [after] site visits in 23 communities)
Focus groups (2007 to 2008)	Validate PRS reporting, gain insights from community partners and staff (planners and implementers) as well as community members.	Community assets and needs Planning and implementation Intended and unintended consequences Strengths and challenges of the initiative Technical assistance from ALbD	77 total focus groups Staff (n = 67 in 23 communities) Partners (n = 215 in 25 communities) Community members (n = 201 in 24 communities)
Photos and videos (2007 to 2008)	Capture physical activity behavior, environmental conditions, or intervention activities.	Images of people/ behaviors Images of environmental conditions (before and after intervention) Images of intervention activities	Streets, trails, recreation facilities, and community members (n = 25 communities)

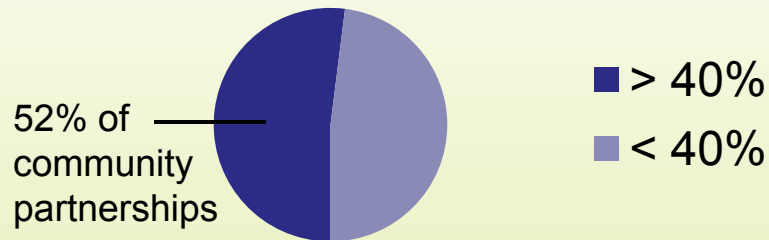
Method	Purpose	Indicators	Observations
Environmental audits (2007)	Document the implementation of physical projects.	Types of residential and non-residential land uses Pedestrian and bicyclist infrastructure Street design characteristics Traffic calming and safety measures Parks, playgrounds, and recreational facilities (presence and condition)	<u>Street audits</u> (n = 45 segments in 5 communities) <u>Trail audits</u> (n = 3 in 3 communities) <u>School facility audit</u> (n = 1 in 1 community)
Direct observation (2007)	Document the impact of physical projects on the physical activity behavior of community members.	Counts of individuals (e.g., children, adults) as well as their physical activity level (sedentary, walking, biking, running) in selected environments	<u>Streets</u> (n = 11 locations in 5 communities for 30 hours of observation) <u>Trails</u> (n = 3 trails in 3 communities for 8 hours of observation) <u>School facility</u> (n = 1 facility in 1 community for 1 hour of observation)

Triangulating mixed methods

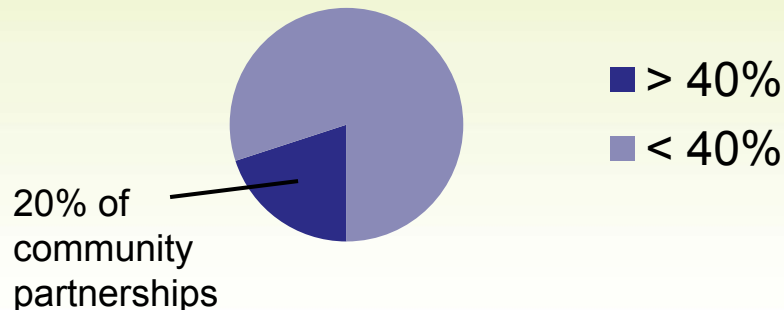


Community Variables

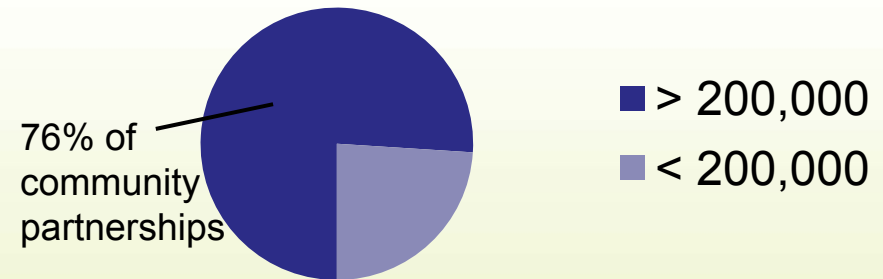
Proportion of Non-Caucasian Racial/ Ethnic Populations



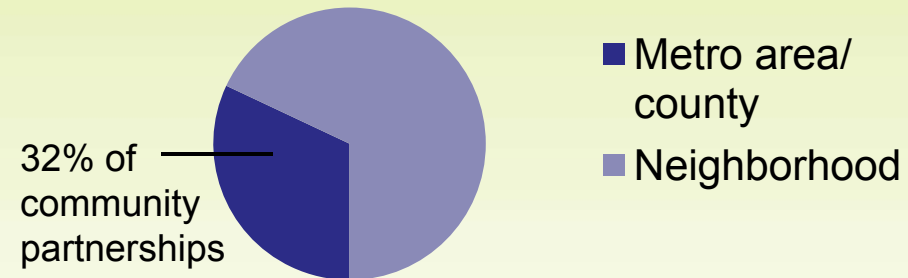
Proportion of Population in Poverty



Population Size – Proportion of Large or Small



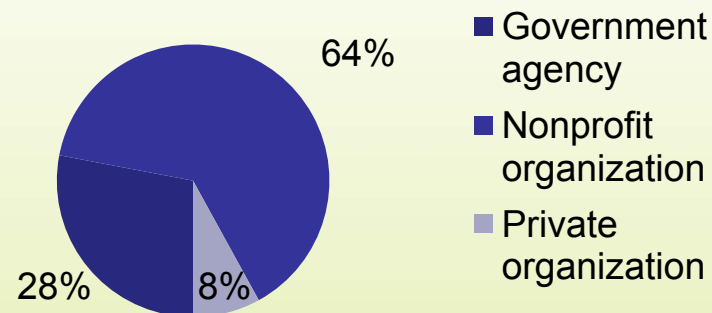
Geographic Scale – Proportion of Large or Small



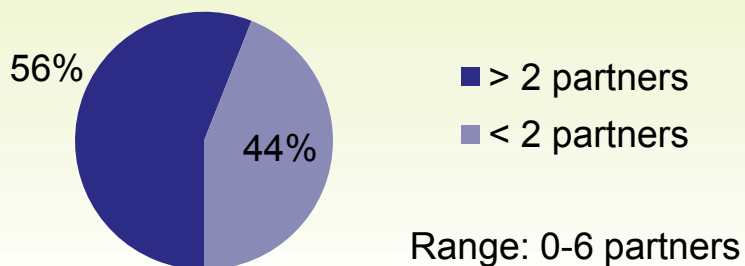
20% of community partnerships were located in southern states.

Preparation Variables

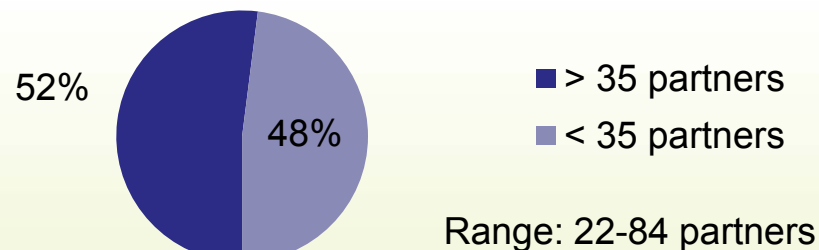
Lead Agency Types



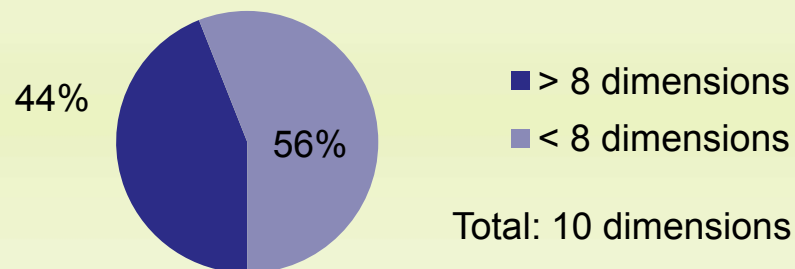
Core Partners



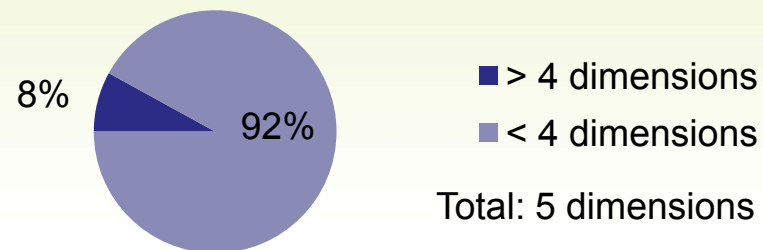
Network of Partners



Partnership Capacity



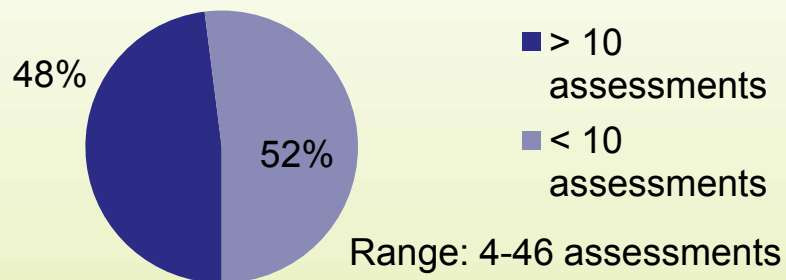
Community Capacity



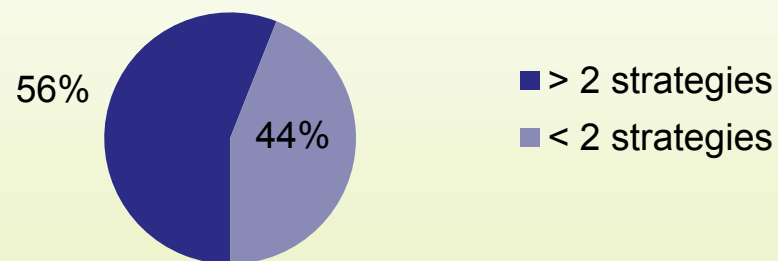
Capacity Dimension	Examples	Mean % Agreement
Purpose & Goals	<ul style="list-style-type: none"> Goals are clearly defined Decisions are based on community needs 	96%
Resources	<ul style="list-style-type: none"> Partners have access to enough <u>space</u> to conduct daily tasks Partners have access to <u>equipment</u> to conduct daily tasks 	88%
Functioning	<ul style="list-style-type: none"> Procedures are clearly defined Partners have input into decisions made 	78%
Leadership	<ul style="list-style-type: none"> Leaders have skills to succeed Partners trust the leadership 	87%
Community Context	<ul style="list-style-type: none"> Partners work with different types of community groups Groups in the community receive an equal amount of resources 	57%

Baker et al., 2012

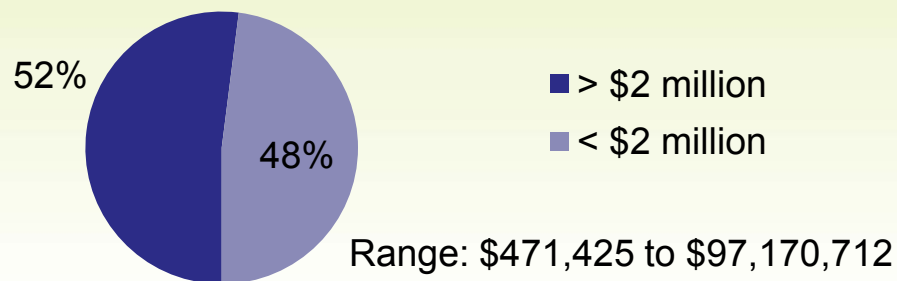
Assessments



Sustainability



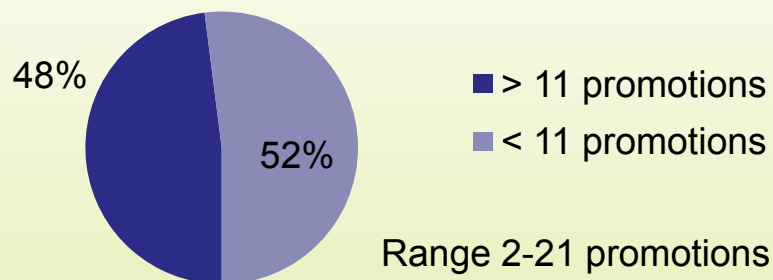
Resources Generated



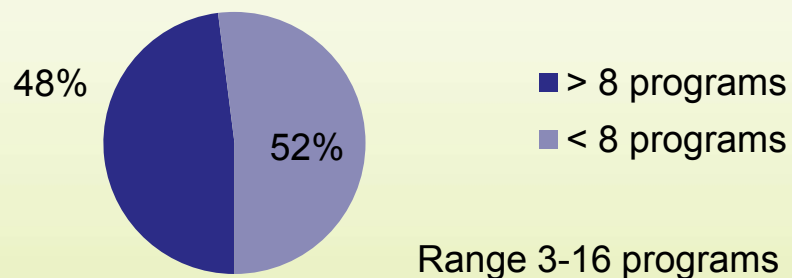
Assessment Methods	# of Grantees
Environmental audit	22
Survey	15
Focus group	15
Mapping (including Geographic Information Systems)	10
Feasibility study	9
Other (e.g., resource inventory, health screening, soul testing)	7
Interviews	6
Community meeting/discussion forum	5
Charrette	5
Secondary data analysis	5
Policy analysis	2
Direct behavior observation	2

Sustainability Strategies	Example Approaches
Expanding Partnerships	<u>Buffalo</u> : Four Neighborhoods, One Community (www.bnmc.org) <u>Louisville</u> : Mayor's Healthy Hometown (www.louisvilleky.gov/HealthyHometown/) <u>Somerville</u> : Shape Up Somerville (www.somervillema.gov)
Sustainable Funding	<u>Oakland</u> : 1% of city budget on children's services and increase to 2.5% <u>Sacramento</u> : 25- to 30-year transportation sales tax (pedestrian, bike, transit) <u>Santa Ana</u> : Ballot measure for citywide sales tax increase to support joint use (\$5 to \$7 million per year for maintenance and security)
Permanent Advisory Committees	<u>Cleveland</u> : Bike/Pedestrian Advisory Committee <u>Louisville</u> : Built Environment Committee <u>Nashville</u> : Health and Fitness Task Force
Policy Change	<u>Chicago</u> : School Wellness Policies <u>Honolulu</u> : City Charter Amendment for a Bicycle/Pedestrian-Friendly Honolulu <u>Orlando</u> : Growth Management Policy
Institution/Organization Change	<u>Charleston</u> : Mobility Manager (ride shares, public transit, air quality) <u>Columbia</u> : Department of Non-motorized Transportation <u>Jackson</u> : School District Safe Routes to School Coordinator

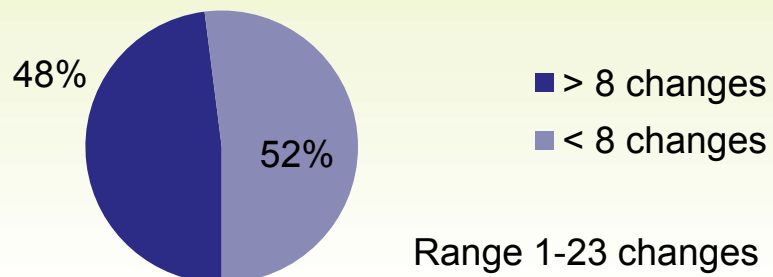
Promotional Efforts



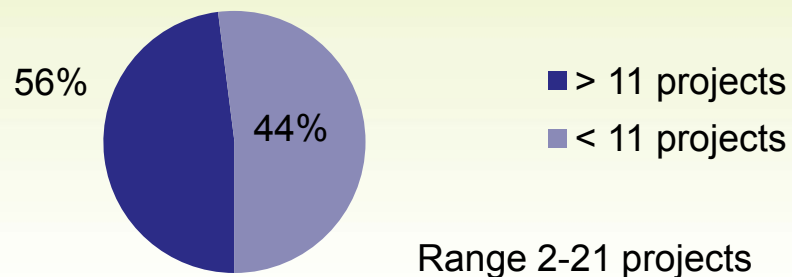
Programmatic Changes



Policy Influences



Physical Projects



More on Programs & Promotions

Strategies*	Community Partnerships
Media (TV, radio, newspaper)	25
Safe Routes to School	15
Walking clubs	13
Bike/Walk to School Day	13
Presentations/ press conferences	13
Festivals/carnivals/fairs	12
Social marketing campaigns	11
Bicycle recycle and donations	9
Bike riding events	9
Wellness programs	8
Walking School Bus/Bike Train	7
Bike safety and education	6
Physical education and wellness programs	5
Wellness/fitness classes	5

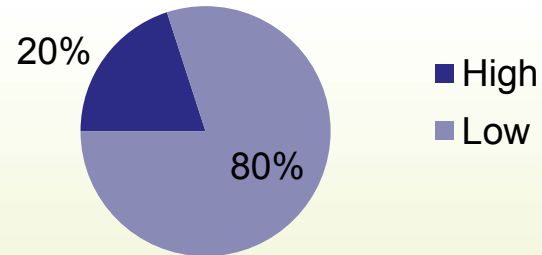
*Strategies implemented by 4 or fewer community partnerships are not shown here.

Policy Changes and Physical Project Strategies	Community Partnerships
<u>Urban Planning Sector, examples:</u> <ul style="list-style-type: none"> • Housing and developments • Zoning regulations/ordinances • Local ordinances (street trees, bike parking) • Subdivision regulations 	16
<u>Active Transportation Sector, examples:</u> <ul style="list-style-type: none"> • Bicycle and pedestrian street improvements • Street design policies and standards • Public transit improvements • Traffic calming street improvements 	23
<u>Park, Recreation, Open Space, and Trail Sector, examples:</u> <ul style="list-style-type: none"> • Community trail development • Park development and redevelopment • Maintenance • Land use policies (parks, recreation, and green/open spaces) 	22
<u>School Sector, examples:</u> <ul style="list-style-type: none"> • Safe Routes to School (environment) • Recreation facilities on school grounds • Schools policies (e.g., wellness, recess) • Joint-use agreements 	19

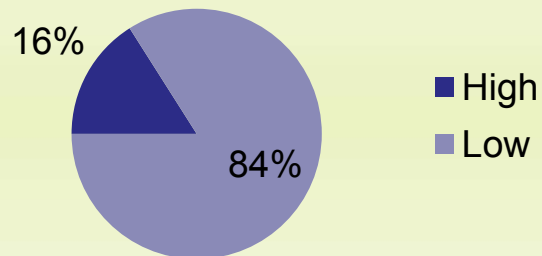
Variables: Integration of the 5Ps

“High” integration = use of at least 3 of 4 implementation strategies (4Ps)

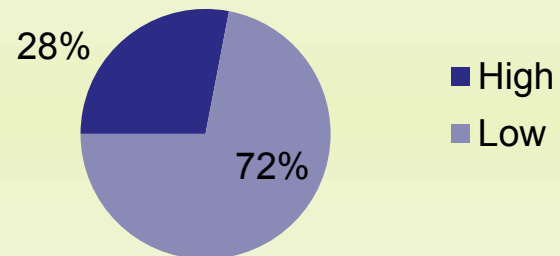
Overall Integration



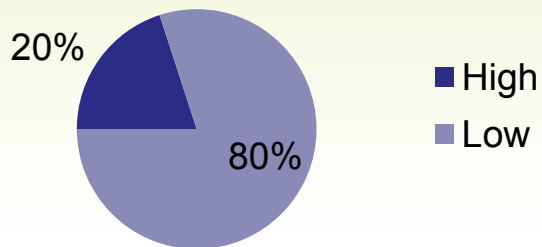
Community Design



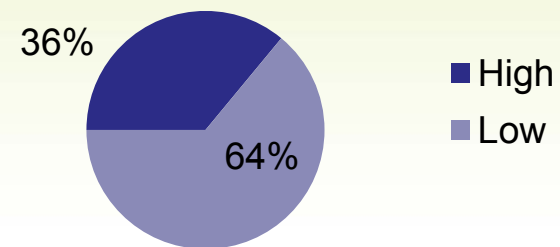
Active Transportation



Parks and Recreation



School



Variable-oriented analysis

How does each community perform on different variables for the 5Ps?

What are the associations between variables across communities?

Case-oriented analysis

How do the 5P variable arrangements differ according to clusters of communities?

What are the community patterns that are associated with different underlying systems?

Similar to cluster analysis and latent growth curve analysis, configural frequency analysis can detect configurations of cases that deviate from what is expected in a base model.

Deviations are the result of a system that “pushes” certain cases in a direction away from the general pattern.

Type: Policy Changes

- ↓ Proportion of racial/ ethnic populations
- ↓ Proportion of people in poverty
- ↓ Total policy changes

($\chi^2 = 11.30$, $p < 0.001$)

Type: Promotions

- ↑ Total assessments
- ↑ Total sustainability efforts
- ↑ Total promotions

($\chi^2 = 9.09$, $p < 0.01$)

Type: Integration

- ↑ Total promotions
- ↑ Total programs
- ↓ Total policy changes

($\chi^2 = 9.06$, $p < 0.01$)

Type: Integration

- ↑ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ Overall integration

($\chi^2 = 9.46$, $p < 0.01$)

Type: Policy Changes

- ↑ Proportion of racial/ ethnic populations
 - ↑ Proportion of people in poverty
 - ↑ Community design policy changes
- ($\chi^2 = 14.66$, $p < 0.001$)

Type: Physical Projects

- ↑ Proportion of racial/ ethnic populations
 - ↑ Proportion of people in poverty
 - ↑ Community design physical projects
- ($\chi^2 = 10.60$, $p < 0.01$)

Anti-Type: Promotions

- ↑ Proportion of racial/ ethnic populations
 - ↓ Population size
 - ↑ Community walk/bike promotions
- ($\chi^2 = 4.67$, $p < 0.05$)

Anti-Type: Programs

- ↑ Proportion of racial/ ethnic populations
 - ↓ Population size
 - ↑ Community walk/bike programs
- ($\chi^2 = 4.83$, $p < 0.05$)

Examples: Active Transportation

Type: Policy Changes

- ↑ Assessment activities
- ↑ Sustainability efforts
- ↑ Active transportation policy changes
($\chi^2 = 11.30$, $p < 0.001$)

Type: Physical Projects

- ↑ Assessment activities
- ↑ Sustainability efforts
- ↑ Active transportation physical projects
($\chi^2 = 13.23$, $p < 0.001$)

Anti-Type: Integration

- ↑ Community walk/bike promotions
- ↑ Active transportation policy changes
- ↓ Active transportation physical projects
($\chi^2 = 14.41$, $p < 0.001$)

Anti-Type: Integration

- ↑ Community walk/bike promotions
- ↑ Active transportation physical projects
- ↓ Active transportation policy changes
($\chi^2 = 14.41$, $p < 0.001$)

Type: Policy Changes

- ↑ Parks and recreation partners
- ↑ Parks and recreation resources
- ↑ Parks and recreation policy changes

($\chi^2 = 9.42$, $p < 0.01$)

Type: Physical Projects

- ↑ Parks and recreation partners
- ↑ Parks and recreation resources
- ↑ Parks and recreation physical projects

($\chi^2 = 10.54$, $p < 0.01$)

Anti-Type: Promotions

- ↓ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ Parks and recreation promotions

($\chi^2 = 10.37$, $p < 0.01$)

Anti-Type: Programs

- ↓ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ Parks and recreation programs

($\chi^2 = 9.50$, $p < 0.01$)

Type: Physical Projects

- ↑ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ School physical projects

($\chi^2 = 11.04$, $p < 0.001$)

Type: Promotions

- ↑ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ School promotions

($\chi^2 = 11.76$, $p < 0.01$)

Type: Programs

- ↑ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ School programs

($\chi^2 = 16.47$, $p < 0.01$)

Type: Integration

- ↑ Proportion of racial/ ethnic populations
- ↑ Proportion of people in poverty
- ↓ School integration

($\chi^2 = 15.60$, $p < 0.01$)

- ▶ Measures for community context and implementation variables
- ▶ Data discrepancies across methods
- ▶ Defining variables for analysis
- ▶ Summarizing complex findings

For more information...



▶ www.activelivingbydesign.org

▶ ALbD “Best Practices” supplement (available: <http://www.activelivingbydesign.org/AJPM>)

▶ ALbD “Evaluation” supplement (available: <http://www.activelivingbydesign.org/events-resources/resources/american-journal-preventive-medicine-november-2012-supplement>)

▶ www.transtria.com/albd

▶ ALR-funded sites (Columbia, MO and Somerville, MA)



Laura K. Brennan, PhD, MPH

laura@transtria.com

The logo graphic for Transtria features a stylized, abstract shape composed of several overlapping triangles in shades of green and yellow, resembling a cluster of leaves or a modern architectural element. The word "transtria" is written in a dark purple, lowercase, cursive script font, positioned to the right of the graphic.

transtria

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6514 Lansdowne Avenue
St. Louis, Missouri 63109

phone (314) 352-8800
fax (314) 352-8909
www.transtria.com